

# **“Design Defect” in Products Liability: Rethinking Negligence and Strict Liability**

FRANK J. VANDALL\*

An examination of products liability cases from 1842 to 1965 manifests two competing doctrines: negligence and strict liability. During this period negligence rested upon the policy of holding persons to the standard of the reasonable man<sup>1</sup> while strict liability rested upon the policy of loss shifting.<sup>2</sup> In 1965 the American Law Institute dramatically changed the meaning of strict products liability by announcing in Restatement (Second) of Torts Section 402A that the essence of strict liability for products was the finding of an “unreasonably dangerous defect.”<sup>3</sup> This formulation generated confusion and spawned numerous cases and articles that have reached conflicting results.<sup>4</sup> Because of this, there is a need to evaluate the concepts of negligence and strict liability and to examine the origins of the Restatement’s definition of defect.

When so much has been written in an area, there is also a need to discover why the existing theories have been rejected by the courts or have created new problems when followed by the courts. This Article traces the historical development of strict liability; considers the impact of the concepts of negligence, strict liability, and warranty on the concept of defect; evaluates numerous suggested tests for defect; discusses whether the emerging concept of comparative fault mandates a change in the meaning of defect; and proposes a functional test for defect. Throughout this Article, “defect” will refer to design defect and not manufacturing defect.<sup>5</sup>

The Article’s goals are to evaluate the conflicting theories and to develop a functional test that reflects precedent. It is not an examination of “rights” underlying products liability law.

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\* Professor of Law, Emory University; Washington and Jefferson College, B.A., 1964; Vanderbilt University, J.D., 1967; University of Wisconsin, LL.M., 1968, S.J.D., 1979.

1. W. PROSSER, HANDBOOK OF THE LAW OF TORTS 149-80 (4th ed. 1971) [hereinafter cited as PROSSER].

2. See text accompanying notes 6-31 *infra*.

3. RESTATEMENT (SECOND) OF TORTS § 402A (1965).

4. *E.g.*, compare Phillips v. Kimwood Machine Co., 269 Or. 485, 525 P.2d 1033 (1976) with Barker v. Lull Eng'g Co., 20 Cal. 3d 413, 573 P.2d 443, 143 Cal. Rptr. 225 (1978); and compare Keeton, *Products Liability and the Meaning of Defect*, 5 ST. MARY'S L.J. 30, 37-38 (1973) with Donaher, Piehler, Twerski, and Weinstein, *The Technical Expert in Products Liability Litigation*, 52-TEX. L. REV. 1303, 1307 (1974).

5. Defects in products are of two kinds: manufacturing defects and design defects. A manufacturing defect is simple to identify because the article can be compared with similar articles made by the same manufacturer—for example, the case of a fly in a soft drink. In the case of a product that is claimed to be defective because of a design defect, the process is not as easy. All the products made to a defective design are the same, such as Volkswagen vans with the engines in the rear. When the plaintiff argues design defect, he raises critical social policy issues.

## I. AN HISTORICAL ANALYSIS OF STRICT LIABILITY

The law of torts has its roots in absolute liability. In the earliest battery cases, the defendant was liable if his act caused damage.<sup>6</sup> The cases rested on absolute liability, and there were no apparent defenses or exceptions.<sup>7</sup> In contrast, the early products liability cases refused to permit recovery by the consumer because of the doctrine of privity: only parties to the contract could recover. In the keystone case of *Winterbottom v. Wright*,<sup>8</sup> the injured mail-coach driver was unable to recover because he was outside the scope of privity. The court explained:

We ought not to permit a doubt to rest upon this subject, for our doing so might be the means of letting in upon us an infinity of actions. . . . There is no privity of contract between these parties; and if the plaintiff can sue, every passenger, or even any person passing along the road, who was injured by the upsetting of the coach, might bring a similar action. Unless we confine the operation of such contracts as this to the parties who entered into them, the most absurd and outrageous consequences, to which I can see no limit, would ensue.<sup>9</sup>

Following *Winterbottom* were seventy-four years of strained doctrinal development. The courts struggled to move the products liability theory closer to the general torts theory, which had expanded by this time to include negligence. The decisions in the products cases expanding liability rested on various legal fictions. The function of these fictions was to make it easier for the consumer to recover and to encourage the courts to examine the relevant social policies. For example, in a case involving a lamp that exploded the court relied upon fraud.<sup>10</sup> In a scaffold case the court used the fiction of an invitation in order to skirt privity and permit recovery.<sup>11</sup> In addition, several cases developed the theory of an "imminently dangerous" article that would permit recovery by one who was not in privity.<sup>12</sup>

This gnawing away at the rule reached a denouement with *McPherson v. Buick Motor Co.*<sup>13</sup> in 1916, when the court held that the purchaser could

6. Anonymous, Y.B. 6 Edw. 4, f. 7a, pl. 18 (K.B. 1466).

7. *Id.* But see *Weaver v. Ward*, Hobart 134, 80 Eng. Rep. 284 (K.B. 1616): "[n]o man shall be excused of a trespass . . . except it may be judged utterly without his fault." *Id.* at 134, 80 Eng. Rep. at 284.

8. 10 M. & W. 109, 11 L.J. Ex. 415, 152 Eng. Rep. 402 (Exch. P. 1842).

9. *Id.* at 114, 11 L.J. Ex. at 417, 152 Eng. Rep. at 404-05.

10. *Longmeid v. Holliday*, 6 Ex. 761, 155 Eng. Rep. 752 (1851). "There are other cases, no doubt, besides those of fraud, in which a third person, though not a party to the contract, may sue for damage sustained, if it be broken." *Id.* at 766-67, 155 Eng. Rep. at 755.

11. *Devlin v. Smith*, 89 N.Y. 470 (1882).

12. See *Huset v. J. I. Case Threshing Mach. Co.*, 120 F. 865 (8th Cir. 1903); *Loop v. Litchfield*, 42 N.Y. 351 (1870); *Thomas v. Winchester*, 6 N.Y. 397 (1852).

13. 217 N.Y. 382, 111 N.E. 1050 (1916):

We hold . . . that . . . [i]f the nature of a thing is such that it is reasonably certain to place life and limb in peril when negligently made, it is then a thing of danger. Its nature gives warning of the consequences to be expected. If . . . there is added knowledge that the thing will be used by persons other than the purchaser . . . then, irrespective of contract, the manufacturer of this thing of danger is under a duty to make it carefully.

*Id.* at 389, 111 N.E. at 1053.

recover in negligence and need not show privity. To be sure, the exceptions had consumed the privity rule.

Three years before the *McPherson* decision, strict liability emerged as a basis for recovery in cases involving food. In the foundation case, *Mazetti v. Armour*,<sup>14</sup> the plaintiff was able to recover in strict liability based upon implied warranty. The court stated:

Remedies of injured consumers ought not to be made to depend upon the intricacies of the law of sales. The obligation of the manufacturer should not be based alone on privity of contract. It should rest, as once was said, upon "the demands of social justice" . . . . Our holding is that, in the absence of an express warranty of quality, a manufacturer of food products under modern conditions impliedly warrants his goods when dispensed in original packages, and that such warranty is available to all who may be damaged by reason of their use in the legitimate channels of trade.<sup>15</sup>

In the period from *Mazetti* and *McPherson* through 1944, the court struggled with negligence, fraud, express warranty, and implied warranty concepts in products liability cases. The results were unsatisfactory because the consumers continually lost cases that, on social policy theories,<sup>16</sup> they should have won. The judicial frustration with these adverse results was vented by Justice Traynor in his concurring opinion in *Escola v. Coca-Cola*,<sup>17</sup> in which he said that recovery in products liability cases should rest upon absolute liability.<sup>18</sup> His reasons for such a radical departure from negligence theory were founded upon social policy: "[T]he risk of injury can be insured by the manufacturer and distributed among the public as a cost of doing business. It is to the public interest to discourage the marketing of products having defects that are a menace to the public."<sup>19</sup>

In 1963 the California Supreme Court in *Greenman v. Yuba Power Products, Inc.*<sup>20</sup> adopted the strict liability that had been foreshadowed in *Escola*. The court stated: "The purpose of such liability is to insure that the cost of injuries resulting from defective products are borne by the manufacturers that put such products on the market rather than by the injured persons who are powerless to protect themselves."<sup>21</sup>

The trend since *Greenman* has been for the courts to rely upon strict liability and to remove whatever barriers to recovery by the consumers remain. The courts have continued to emphasize social policy reasons for their decisions. There has been one important difference, however. The policy

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14. 75 Wash. 622, 135 P. 633 (1913).

15. *Id.* at 627, 135 P. at 636.

16. The terms "social policy" or "policy" refer to the actual or operative factors that the court uses to decide the case. Examples are: availability of insurance, administrative problems, prevention, loss shifting, impact of the decision on society, and fairness. These are in contrast to the legal concepts of "foreseeability" and "remoteness." See Green, *The Duty Problem in Negligence Cases* (pt. 1), 28 COLUM. L. REV. 1014 (1928).

17. 24 Cal. 2d 453, 150 P.2d 436 (1944) (Traynor, J., concurring).

18. *Id.* at 461-68, 150 P.2d at 440.

19. *Id.* at 462, 150 P.2d at 441.

20. 59 Cal. 2d 57, 377 P.2d 897, 27 Cal. Rptr. 697 (1963).

21. *Id.* at 63, 377 P.2d at 901, 27 Cal. Rptr. at 701.

reasons emphasized have been those that favor consumer recoveries, such as loss shifting, availability of insurance, and ease of prevention.<sup>22</sup> The courts have engaged in an inquiry weighted at the beginning in favor of the consumer. This has not been a neutral balancing of interests. In a 1978 case,<sup>23</sup> for example, the court held that once the plaintiff has shown a prima facie case, the burden of proof shifted to the manufacturer to show that the benefits of the design exceeded the costs of avoiding the defect.

*Henningsen v. Bloomfield Motors*<sup>24</sup> held in 1960 that the injured consumer could recover for damages in implied warranty without showing privity. In many ways *Henningsen* is a *tour de force* of social policy analysis and is firmly grounded upon the concept of loss shifting.<sup>25</sup> This expansion in strict liability and the continuing emphasis on policies that favored the plaintiff allowed Professor Guido Calabresi to state recently, "Today, in product liability, the risk is initially placed on the producer and remains there unless complex circumstances, more powerful than user fault, justify a shift in risk-bearing from producer to user."<sup>26</sup>

During the period of 1944 to 1972, there were two distinctly different products liability theories developing. On the one hand was negligence, based essentially on the reasonable man concept. In contrast was strict liability, resting firmly on loss shifting. It was inevitable that these two conceptual frameworks would meet. This occurred in 1972 in *Cronin v. J.B.E. Olson Corp.*<sup>27</sup> *Cronin* held that the plaintiff must prove that the product is defective, but need not prove an "unreasonably dangerous defect."<sup>28</sup> The Restatement (Second) of Torts Section 402A test for strict liability requires the consumer to show that the defect was "unreasonably dangerous."<sup>29</sup> The court in *Cronin* held that such a test sounded of negligence and would require the plaintiff to prove absence of reasonable care which had been disavowed in *Greenman*.<sup>30</sup> The *Cronin* court emphasized that strict liability is not negligence and requires

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22. See *Greenman v. Yuba Power Prods., Inc.*, 59 Cal. 2d 57, 377 P.2d 897, 27 Cal. Rptr. 697 (1963); *Henningsen v. Bloomfield Motors*, 32 N.J. 358, 161 A.2d 69 (1960); *Phillips v. Kimwood Mach. Co.*, 269 Or. 485 n.6, 525 P.2d 1033 n.6 (1974).

23. *Barker v. Lull Eng'g Co.*, 20 Cal. 3d 413, 573 P.2d 443, 143 Cal. Rptr. 225 (1978): "[O]nce the plaintiff makes a prima facie showing that the injury was proximately caused by the product's design, the burden should appropriately shift to the defendant to prove, in light of the relevant factors, that the product is not defective." *Id.* at 431, 573 P.2d at 455, 143 Cal. Rptr. at 234.

24. 32 N.J. 358, 161 A.2d 69 (1960).

25. "[T]he burden of losses consequent upon use of defective articles is borne by those who are in a position to either control the danger or make an equitable distribution of the losses. . . ." *Id.* at 379, 161 A.2d at 81.

26. Calabresi, *Product Liability: Curse or Bulwark of Free Enterprise*, 27 CLEV. ST. L. REV. 313, 319 (1978).

27. 8 Cal. 3d 121, 501 P.2d 1153, 104 Cal. Rptr. 433 (1972).

28. The court stated:

Yet the very purpose of our pioneering efforts in this field [strict liability] was to relieve the plaintiff from problems of proof inherent in pursuing negligence. . . . We think that a requirement that a plaintiff also prove that the defect made the product "unreasonably dangerous" places upon him a significantly increased burden and represents a step backward in the area pioneered by this court.

*Id.* at 133, 501 P.2d at 1162, 104 Cal. Rptr. at 442.

29. RESTATEMENT (SECOND) OF TORTS § 402A (1965).

30. 8 Cal. 3d 121, 133-35, 501 P.2d 1152, 1162-63, 104 Cal. Rptr. 433, 442-43 (1972).

only proof of a "defect."<sup>31</sup> *Cronin*, however, failed to define "defect." In rejecting negligence and in neglecting to define "defect," *Cronin* raised the fundamental issue of what is meant by "defect" in a products liability case resting upon strict liability.

## II. THE IMPACT OF NEGLIGENCE, STRICT LIABILITY, AND WARRANTY ON THE DEFINITION OF DEFECT

The courts and authors have had substantial difficulty defining the concept of defect in strict liability. This stems from a failure to examine the causes of action that form the boundaries of strict liability. Before defining defect, it will, therefore, be helpful to explore these basic tort actions.

### A. Negligence

Several authors have stated that strict liability is merely a form of negligence.<sup>32</sup> This is in direct contrast to what the courts have held. The courts generally have indicated that negligence is not strict liability and should not be referred to in defining defect.<sup>33</sup> To discover whether the authors or the judges are correct, it will be necessary to examine negligence.

The negligence formula is composed of five factors: duty, breach, cause in fact, proximate cause, and damages.<sup>34</sup> The courts have not given close

31. *Id.* at 133-34, 501 P.2d at 1162, 104 Cal. Rptr. at 442.

32. As Dean Keeton has written:

There are two main points to emphasize. First, when plaintiff seeks to recover for harm resulting from an alleged defective product on a theory of strict liability, rather than negligence, he is not relieved from the burden of showing a defect in the product which was likely present when the maker surrendered possession and control. Second, when negligence is the basis for recovery, proof of the same two requirements will normally serve as circumstantial evidence sufficient for a finding on the part of the jury that the defect was the result of the maker's negligence. . . . Therefore, while strict liability obviates the necessity for convincing the jury as to the existence of negligence, it does not alter in any substantial way the plaintiff's proof problems, and the satisfaction of plaintiff's proof requirements for strict liability will generally result also in a finding of negligence.

Keeton, *Manufacturer's Liability: The Meaning of "Defect" in the Manufacture and Design of Products*, 20 SYRACUSE L. REV. 559, 563 (1969).

"Improper Design. There is little difference here between the negligence action and the action for strict liability." Wade, *On the Nature of Strict Tort Liability for Products*, 44 MISS. L.J. 825, 841 (1973).

"Thus, the test for imposing strict liability is whether the product was unreasonably dangerous, to use the words of the Restatement. . . . It may be argued that this is simply a test of negligence. Exactly." Wade, *Strict Tort Liability of Manufacturers*, 19 SW. L.J. 5, 15 (1965).

33. See, e.g., *Barker v. Lull Eng'g Co.*, 20 Cal. 3d 413, 573 P.2d 443, 143 Cal. Rptr. 225 (1978):

In *Cronin*, we reviewed the development of the strict product liability doctrine in California . . . and concluded that . . . the "unreasonably dangerous" element which section 402A of the Restatement (Second) of Torts had introduced into the definition of a defective product should not be incorporated into a plaintiff's burden of proof in a product liability action . . . .

*Id.* at 417, 573 P.2d at 446, 143 Cal. Rptr. at 228.

The result of the limitation [unreasonably dangerous] . . . has not been merely to prevent the seller from becoming an insurer. . . . Rather, it has burdened the injured plaintiff with proof of an element which rings of negligence. . . . Yet the very purpose of our pioneering efforts in this field was to relieve the plaintiff from problems of proof inherent in pursuing negligence.

*Cronin v. J.B.E. Olson Corp.*, 8 Cal. 3d 121, 132-33, 501 P.2d 1153, 1161-62, 104 Cal. Rptr. 433, 441-42 (1972). "To establish the manufacturer's liability [in strict liability] it was sufficient that plaintiff proved that he was injured . . . as a result of a defect in design and manufacture of which plaintiff was not aware. . . ." *Greenman v. Yuba Power Prods., Inc.*, 59 Cal. 2d 57, 64, 377 P.2d 897, 901, 27 Cal. Rptr. 697, 701 (1963).

34. PROSSER, *supra* note 1, at 143, 144, 236-50.

attention to the concept of duty. Judge Learned Hand in *United States v. Carroll Towing*<sup>35</sup> stated, in a negligence action involving a ship that broke away from its moorings, that duty was a matter of balancing three variables: "(1) the probability that she will break away; (2) the gravity of the resulting injury if she does; (3) the burden of adequate precautions."<sup>36</sup> The famous *Palsgraf* case,<sup>37</sup> on the other hand, states that duty is a question of whether the defendant could foresee that the plaintiff could be harmed. The courts, however, usually cite these duty cases only to ignore them.<sup>38</sup>

Breach of duty involves the question of whether the defendant conducted himself as a reasonable man would have under the same or similar circumstances.<sup>39</sup> Cause in fact is primarily a question of whether the defendant's act was a substantial factor in bringing about the damages.<sup>40</sup> Dean Leon Green states that cause in fact is a scientific question of whether the defendant's act had anything to do with the injury to the plaintiff.<sup>41</sup> The most troubling aspect of the negligence formula is proximate cause. This concept limits the scope of liability and is usually defined by the court asking whether the damages were foreseeable by the defendant.<sup>42</sup> Damages, of course, must be proved as part of the negligence cause of action.<sup>43</sup>

Professor Richard Posner suggests that negligence is essentially a matter of economics—the court's balancing costs against benefits.<sup>44</sup> Professor Posner's article does not support his position, however. The only cited pro-

35. 159 F.2d 169 (2d Cir. 1947).

36. *Id.* at 173.

37. *Palsgraf v. Long Island R.R. Co.*, 248 N.Y. 339, 162 N.E. 99 (1928).

38. As Dean Green has noted:

In later years they [the courts] have become exceedingly timid in discussing the policies which lie at the base of liability based upon negligent conduct. Instead they lower the curtain of "proximate cause" and seldom disclose the policies at the base of their decisions. They seem to think that they are in some way bound by the jury formula of "foreseeability" and that it somehow provides a yardstick for them. . . . Surrender of their rightful function to this shibboleth has become so habitual that the forthright discussion of the limits of liability in a negligence case, out of the thousands reported every year, is almost unheard of. Instead the books are loaded with pages of repetitious and meaningless quotations . . . about "proximate cause" with scarcely a vital thought in a volume.

Green, *Proximate Cause in Texas Negligence Law* (pt. 3), 28 TEX. L. REV. 755, 758-59 (1950). See generally *id.* (pt. 1), 28 TEX. L. REV. 471; *id.* (pt. 2), 28 TEX. L. REV. 621; *id.* (pt. 3), 28 TEX. L. REV. 755 (1950) [hereinafter cited as *Proximate Cause*].

Compare Dean Green's position with Judge Friendly's in *In re Kinsman Transit Co.*, 338 F.2d 708 (2d Cir. 1964), and with Judge Kaufman's in *In re Kinsman Transit Co.*, 388 F.2d 821 (2d Cir. 1968).

39. PROSSER, *supra* note 1, at 143.

40. *Id.* at 240.

41. *Proximate Cause* (pt. 1), *supra* note 38, at 474-76.

42. See *Overseas Tankship (U.K.) Ltd v. Morts Dock and Eng'g Co. (Wagon Mound No. 1)*, [1961] A.C. 388; PROSSER, *supra* note 1, at 236.

43. PROSSER, *supra* note 1, at 143.

44. Posner, *A Theory of Negligence*, 1 J. LEGAL STUD. 29, 32 (1972).

For a critique of Posner's economic theory of negligence, see Epstein, *A Theory of Strict Liability*, 2 J. LEGAL STUD. 151 (1973):

This common sense approach to torts as a branch of common law stands in sharp opposition to much of the recent scholarship on the subject because it does not regard economic theory as the primary means to establish the rules of legal responsibility. A knowledge of the economic consequences of alternative legal arrangements can be of great importance, but even among those who analyze tort in economic terms there is acknowledgement of certain questions of "justice" or "fairness" rooted in common sense beliefs that cannot be explicated in terms of economic theory.

ponent of the test is Learned Hand, who, Professor Posner admits, may have stumbled upon it rather than intended it as the rationale of the *Carroll Towing* case.<sup>45</sup> Indeed, Hand rejected the test himself within two years of deciding that case.<sup>46</sup> Further, none of the 1,528 appellate decisions studied by Professor Posner expresses a cost-benefit test.<sup>47</sup> Although it may be argued that the 1,528 cases impliedly support a cost-benefit test, it is also arguable that they stand for a much broader definition of negligence. Posner's work has been most helpful in emphasizing the role of economic analysis in tort law. His thesis is only partly accurate, however. The courts weigh many factors in deciding a question of negligence, of which the cost, probability of injury, and burden of preventing injury are only a few.<sup>48</sup>

The suggestion that negligence is primarily a question of risk compared with benefit is more a statement of how the commentators would like negligence to be treated by the courts than a description of the existing process. In the usual negligence case, the social policy questions are neither candidly nor clearly examined at any stage. A determination of duty would often be dispositive of the case; but instead of deciding the duty issue, the courts rest the decision upon another element, such as proximate cause.<sup>49</sup> The question of whether the defendant's duty has been breached is uniformly given to the jury, and the policy questions are not faced by appellate or trial courts.<sup>50</sup>

As mentioned earlier, the most troubling concept in negligence theory is proximate cause. The function of proximate cause is to enable the courts to control the scope of the jury's deliberations.<sup>51</sup> In answering this scope of liability question, the courts should look at the important social policies such as prevention, loss shifting, and availability of insurance.<sup>52</sup> Instead of using a policy-balancing approach, however, the courts usually resolve the proximate cause issue by asking whether the damages were foreseeable by the defendant, the injury was remote, the occurrence was natural, or the defendant's act was the sole proximate cause.<sup>53</sup> In short, instead of using social policy to define the scope of liability in negligence cases, the courts generally

45. Posner, *A Theory of Negligence*, 1 J. LEGAL STUD. 29, 32 (1972).

46. Epstein, *A Theory of Strict Liability*, 2 J. LEGAL STUD. 151, 154 (1973).

Learned Hand may never have fully accepted the *Carroll Towing* formula. In 1962, Laurence H. Eldredge stated at the ALI's Discussion of Restatement of the Law (Second) Torts:

I remember Judge Learned Hand, Mr. Chairman, at one of our conferences up in Northeast Hartford in the 1930's made a statement that if he could rewrite the tort law of America he would impose a rule of absolute liability in all cases in which a defendant could protect himself by liability insurance.

39 ALI PROCEEDINGS 233 (1962).

47. Posner, *A Theory of Negligence*, 1 J. LEGAL STUD. 29, 29 (1972).

48. See Green, *The Duty Problem in Negligence Cases* (pts. 1 & 2), 28 COLUM. L. REV. 1014 (1928), 29 COLUM. L. REV. 255 (1929); *Proximate Cause* (pts. 1-3), *supra* note 38.

49. *Proximate Cause* (pt. 3), *supra* note 38, at 755-56.

50. Green, *The Duty Problem in Negligence Cases* (pts. 1 & 2), 28 COLUM. L. REV. 1014 (1928), 29 COLUM. L. REV. 255 (1929); *Proximate Cause* (pt. 3), *supra* note 38, at 758-59.

51. See PROSSER, *supra* note 1, at 244-45; *Proximate Cause* (pt. 1), *supra* note 38, at 473.

52. See generally Green, *The Duty Problem in Negligence Cases* (pts. 1 & 2), 28 COLUM. L. REV. 1014 (1928), 29 COLUM. L. REV. 255 (1929).

53. See PROSSER, *supra* note 1, at 244-89. For a case applying many of the proximate cause tests at the same time, see *Martin v. Southern Bell Tel. and Tel. Co.*, 126 Ga. App. 809, 192 S.E.2d 176 (1972).

rely upon the overworked and misleading term, foreseeability.<sup>54</sup> The result is that policy questions often are not examined.<sup>55</sup> Indeed, Dean Green's suggestion that proximate cause be eliminated from the negligence formula and that the courts focus on the policy questions through the duty concept<sup>56</sup> largely has been ignored.

Several examples manifest that the courts decide negligence cases on the basis of feelings or hunches rather than by weighing important social policies. None of the following cases, for example, expressly weighs policies such as administrative difficulty, prevention of injury, ability to carry the loss, insurance, or impact upon society.<sup>57</sup> In the well-known "*Wagon Mound I*"<sup>58</sup> case, the court found that the defendant ship owner was not liable for discharging oil into the water, because it was not "foreseeable" that oil, floating on water, would ignite. In *Polemis*,<sup>59</sup> another famous case, a plank slipped, caused a spark, and an entire ship was consumed in the resulting flames. The court found in favor of the plaintiff because the fire was a "direct" result of the plank's falling.<sup>60</sup> In *Whetham v. Bismarck Hospital*<sup>61</sup> a nurse dropped the plaintiff-mother's newly born infant in front of her. The court refused to permit the mother to recover for the mental distress that followed because the mother was not within the "zone of danger."<sup>62</sup> In *Schwinn Sales South v. Waters*<sup>63</sup> the court found no negligence on the part of a manufacturer who produced a child's bicycle without reflectors. The child was hit by a car at night. The decision rests on the fact that absence of reflectors was patent.

An important difference, then, between negligence and strict liability is, authors have suggested, that in negligence the key consideration for the courts is the major policies involved, that is, whether the risk exceeds the benefit of the activity.<sup>64</sup> In practice, however, the courts avoid discussing the policy questions. Therefore, a distinction between negligence and strict liability is that

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54. See, e.g., *In re Kinsman Transit Co.*, 338 F.2d 708 (2d Cir. 1964); *In re Kinsman Transit Co.*, 388 F.2d 821 (2d Cir. 1968). Judge Coulson was to the point: "General Motors conceded that it could foresee that its products would be involved in accidents of an infinite variety, including rollovers. Its argument is that foreseeability cannot be equated with duty. . . . If duty were commensurate with foreseeability, then an automobile manufacturer would be an insurer." *Turner v. General Motors Corp.*, 514 S.W.2d 497, 503 (Tex. Civ. App. 1974). See also *Proximate Cause* (pt. 3), *supra* note 38, at 772-76; Green, *The Wagon Mound No. 2—Foreseeability Revised*, 1967 UTAH L. REV. 197.

55. *Proximate Cause* (pt. 3), *supra* note 38, at 758.

56. See *Proximate Cause* (pt. 3), *supra* note 38, at 774.

57. Dean Green indicated that the following are some of the factors that can be weighed by the courts in deciding the scope of liability in negligence cases: lack of precedent, flood of litigation, administrative impracticality, no limitation on liability, immorality, hardship, injustice, ability to carry the risk, changed social conditions, economics, and prevention. *Proximate Cause* (pt. 3), *supra* note 38, at 757 n.4; Green, *The Duty Problem in Negligence Cases* (pt. 1), 28 COLUM. L. REV. 1014, 1034-44 (1928).

58. *Overseas Tankship (U.K.) Ltd. v. Morts Dock and Eng'g Co.*, [1961] A.C. 388.

59. *In re Arbitration Between Polemis and Furness, Withy & Co.*, [1921] 3 K.B. 560.

60. *Id.* at 575, 577.

61. 197 N.W.2d 678 (N.D. 1972).

62. *Id.* at 684.

63. 126 Ga. App. 385, 190 S.E.2d 815 (1972).

64. Professor Posner has suggested:

It is time to take a fresh look at the social function of liability for negligent acts. . . . In a negligence case, Hand said, the judge (or jury) should attempt to measure three things: the magnitude of the loss if



in strict liability the court is asked to face directly the question of whether the risk of the activity exceeds the benefit.<sup>65</sup> This express weighing of critical policies in products liability cases is the central theme of *Escola*, *Greenman*, and *Cronin*. The proposed similarity between negligence and strict liability has existed only because of the commentators' molding of negligence into something it has never been: a frontal consideration of important social policies.

Several theories may be suggested to explain why the courts have clearly articulated the operative policies in strict liability, but not in negligence cases. First, the defendant in a strict liability case is often a major manufacturer, such as Ford or General Motors—a signal to the court that the case is important and careful analysis is necessary. Second, the results in strict liability cases will, in part, dictate whether the products will continue to be marketed. Finally, the manufacturers have made it clear that “squid function” words, such as “foreseeable,” will result in their being held liable in most cases.<sup>66</sup>

### B. *Strict Liability*

The concept of strict liability in dangerous activities, such as blasting, and in products liability is similar.<sup>67</sup> The question of strict liability in dangerous activities is primarily an issue of social policy: who should bear the loss.<sup>68</sup> This point has been obscured by the imposition of a conceptual roadblock, namely, the Restatement (Second) of Torts Section 520, which provides:

In determining whether an activity is abnormally dangerous, the following factors are to be considered: (a) whether the activity involves a high degree of risk of some harm to the person, land or chattels of others; (b) whether the gravity of the harm which may result from it is likely to be great; (c) whether the risk cannot be eliminated by the exercise of reasonable care; (d) whether the activity is not a matter of common usage; (e) whether the activity is inappropriate to the place where it is carried on; and (f) the value of the activity to the community.

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an accident occurs; the probability of the accident's occurring; and the burden of taking precautions that would avert it.

Posner, *A Theory of Negligence*, 1 J. LEGAL STUD. 29, 32 (1972).

It is fundamental that the standard of conduct which is the basis of the law of negligence is determined by balancing the risk, in the light of the social value of the interest threatened, and the probability and extent of the harm, against the value of the interest which the actor is seeking to protect, and the expedience of the course pursued.

PROSSER, *supra* note 1, at 149.

65. To this extent, the evaluation of factors in strict liability compares with duty analysis as presented by Dean Green. See generally Green, *The Duty Problem in Negligence Cases* (pts. 1 & 2), 28 COLUM. L. REV. 1014 (1928), 29 COLUM. L. REV. 255 (1929). Dean Green's work has helped clarify analysis for academicians more than for judges, however. The courts still rely on proximate cause and foreseeability. See generally *Proximate Cause* (pts. 1-3), *supra* note 38.

66. *Turner v. General Motors Corp.*, 514 S.W.2d 497 (Tex. Civ. App. 1974).

67. See *Spano v. Perini Corp.*, 25 N.Y.2d 11, 250 N.E.2d 31, 302 N.Y.S.2d 527, *on remand*, 33 A.D.2d 516, 304 N.Y.S.2d 15 (1969). The *Spano* court uses the term “absolute liability,” but since the defense of assumption of risk would be available, “strict liability” is a more accurate term. See W. PROSSER, J. WADE & V. SCHWARTZ, TORTS 15 (6th ed. 1976).

68. “The question . . . was not *whether* it was lawful or proper to engage in blasting but *who* should bear the cost of any resulting damage—the person who engaged in the dangerous activity or the innocent neighbor injured thereby.” 25 N.Y.2d 11, 17, 250 N.E.2d 31, 34, 302 N.Y.S.2d 527, 532 (1969) (emphasis in original).

Several false issues are presented in section 520. First, requiring the court to consider whether the "risk cannot be eliminated by the exercise of reasonable care" suggests an issue that is apparently not supported by the cases.<sup>69</sup> There is no requirement in the foundation case, *Rylands v. Fletcher*,<sup>70</sup> that there be a finding that the risk cannot be eliminated by reasonable care. Evidently the goal of the Restatement reporter, in drafting section 520, was to limit the scope of strict liability essentially to blasting cases.<sup>71</sup> That is, the danger from very few activities (blasting, nuclear power) cannot be eliminated through reasonable care.

A second false factor is that the activity must not be a "matter of common usage."<sup>72</sup> This test also is not supported by the cases.<sup>73</sup> It is misleading because it takes the focus away from the important question of whether the activity is "natural."<sup>74</sup> Under *Rylands* and its progeny, the term "natural" has been used to decide whether an activity is one that should be held to strict liability.<sup>75</sup> More importantly, however, the Restatement's "common usage" test can lead to bad results. In *Wood v. United Airlines*<sup>76</sup> the court held that since airplanes were "common," strict liability would not apply to a crash of an airliner into an apartment house in New York City.

The fundamental issue in strict liability, however, is who should bear the loss.<sup>77</sup> That is, "the justification for strict liability . . . is that useful but dangerous activities must pay their own way."<sup>78</sup> The analogy between strict liability in the blasting cases and in the products liability area is substantial. The question of strict liability from dangerous activities is for the court. It is primarily a question of policy involving whether the defendant is in the best position to bear the loss.<sup>79</sup> The cases have been clear in addressing the fundamental policy issue. Therefore, the Restatement stands out as having muddled the water.

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69. See RESTATEMENT (SECOND) OF TORTS § 520(c) (1977).

70. 3 H. & C. 774 (Ex. 1865), *rev'd*, [1866] L.R. 1 Ex. 265, *aff'd*, [1868] L.R. 3 H.L. 330.

71. Blasting neatly fits the § 520 formula. It involves a high degree of risk, great harm, and risk cannot be eliminated by the exercise of reasonable care. It is not a matter of common usage, is often inappropriate to the place where it is carried on, and has a substantial value to the community. By comparison, most other activities, such as mountain land development in California, do not quite fit. See *Beck v. Bel Air Properties, Inc.*, 134 Cal. App. 2d 834, 286 P.2d 503 (1955). But see *Cities Serv. Co. v. State*, 312 So. 2d 799 (Fla. Dist. Ct. App. 1975).

72. See, e.g., *Spano v. Perini Corp.*, 25 N.Y.2d 11, 250 N.E.2d 31, 302 N.Y.S.2d 527 (1969). See also RESTATEMENT (SECOND) OF TORTS § 520(d) (1977).

73. See *Spano v. Perini Corp.*, 25 N.Y.2d 11, 250 N.E.2d 31, 302 N.Y.S.2d 527 (1969); *Rylands v. Fletcher*, 3 H. & C. 774 (Ex. 1865), *rev'd*, [1866] L.R. 1 Ex. 265, *aff'd*, [1868] L.R. 3 H.L. 330.

74. *Rylands v. Fletcher*, [1868] L.R. 3 H.L. 330, 338-39.

75. See J. FLEMING, *LAW OF TORTS* 28 (4th ed. 1971); Newark, *Non-Natural Users and Rylands v. Fletcher*, 24 MOD. L. REV. 557 (1961); Stallybrass, *Dangerous Things and the Non-Natural User of Land*, 3 CAMBRIDGE L.J. 376 (1929).

76. 32 Misc. 2d 955, 223 N.Y.S.2d 692, *aff'd*, 16 A.D.2d 659, 226 N.Y.S.2d 1022, *appeal dismissed*, 11 N.Y.2d 1053, 184 N.E.2d 180, 230 N.Y.S.2d 207 (1961).

77. See *Spano v. Perini Corp.*, 25 N.Y.2d 11, 250 N.E.2d 31, 302 N.Y.S.2d 527 (1969).

78. *Cities Serv. Co. v. State*, 213 So. 2d 799, 803 (Fla. Dist. Ct. App. 1975).

79. See *id.* at 804; *Spano v. Perini Corp.*, 25 N.Y.2d 11, 17, 250 N.E.2d 31, 34, 302 N.Y.S.2d 527, 532 (1969).

### C. Warranty

Three facets of warranty need to be considered in examining the boundaries of strict liability: express warranty, implied warranty in tort, and implied warranty under the Uniform Commercial Code. Express warranty is based on the fact that the defendant has said something about his product, such as "shatter-proof glass windshield."<sup>80</sup> Development of the law in this area no doubt accounts for the vacuous nature of contemporary automobile ads, which say nothing of substance about the product.

Because of the strength of the privity concept and the avoidance of express statements by manufacturers, courts developed implied warranty in tort in order to shift the loss resulting from defective products to the manufacturer.<sup>81</sup> The point of the implied warranty doctrine is that the manufacturer is held liable by law, even though he made no express statement about the quality or durability of the product.<sup>82</sup> The basis for the implied warranty doctrine is, as presented in *Henningsen v. Bloomfield Motors*: "[T]he burden of losses consequent upon use of defective articles is borne by those who are in a position to either control the danger or make an equitable distribution of the losses when they do occur."<sup>83</sup>

The doctrine of implied warranty is not without problems, however. For example, in some cases the courts have asked, "Where is the warranty?"<sup>84</sup> They have reasoned that if there is no warranty or statement by the manufacturer, there can be no implied warranty.<sup>85</sup>

The Uniform Commercial Code may still provide an avenue of recovery in an appropriate products liability case. Section 2-318 (Alternative A) of the Uniform Commercial Code provides that "a seller's warranty, whether express or implied, extends to any natural person who is in the family or household of his buyer or who is a guest in his home if it is reasonable to expect that such person may use, consume or be affected by the goods and who is injured in person by breach of the warranty." Of course, pleading both strict products liability and the Uniform Commercial Code in the same suit can lead to confusion for the court and jury, and the better course seems to be to plead one or the other.<sup>86</sup>

In summary, express warranty is not generally available because there is no statement sufficient to qualify. Implied warranty was the precursor of pure

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80. *Baxter v. Ford Motor Co.*, 168 Wash. 456, 12 P.2d 409 (1932).

81. *See, e.g., Henningsen v. Bloomfield Motors*, 32 N.J. 358, 161 A.2d 69 (1960).

82. "In such a marketing milieu his remedies and those of persons who properly claim through him should not depend 'upon the intricacies of the law of sales.' It should rest . . . upon 'the demands of social justice.'" *Id.* at 384, 161 A.2d at 83.

83. *Id.* at 379, 161 A.2d at 81.

84. *See PROSSER, supra* note 1, at 650-56.

85. *Id.*

86. *See generally Green, Strict Liability Under Sections 402A and 402B: A Decade of Litigation*, 54 TEX. L. REV. 1185, 1187 (1976).

strict liability, and both implied warranty and strict liability rest upon the policy that losses should be borne by the producer rather than by the innocent consumer.

### III. PROPOSED TESTS FOR DEFECT

Several tests have been suggested to define the keystone element in strict liability: defect. In evaluating the various tests, it will be helpful to ask whether they are responsive to the underlying precedential policy as stated by the New Jersey Supreme Court in *Henningsen v. Bloomfield Motors*.<sup>87</sup> "[T]he burden of losses consequent upon use of defective articles is borne by those who are in a position to either control the danger or make an equitable distribution of the losses when they do occur."<sup>88</sup>

#### A. Section 402A "Unreasonably Dangerous"

The Restatement's test for strict products liability provides that "[o]ne who sells any product in a defective condition unreasonably dangerous to the user or consumer or to his property is subject to liability for physical harm thereby caused to the ultimate user or consumer. . . ."<sup>89</sup> The term "unreasonably dangerous" has caused a great deal of dissatisfaction with the Restatement formulation.<sup>90</sup> The reasons for using the term "unreasonably dangerous" are to make it clear that the product must be defective and that the manufacturer of an ordinary product that contains some danger, but is not defective, will not be held liable.<sup>91</sup>

The Restatement test has been criticized on two grounds. First, it is misleading because the term "unreasonably dangerous" suggests to the jury that the product must be more than dangerous.<sup>92</sup> Second, it implies that the plaintiff must prove that the defendant has been negligent.<sup>93</sup> Attempts have been made to explain away these criticisms by suggesting that "unreasonably dangerous" and defective mean the same thing and should not be interpreted

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87. 32 N.J. 358, 161 A.2d 69 (1960).

88. *Id.* at 379, 161 A.2d at 81.

89. RESTATEMENT (SECOND) OF TORTS § 402A (1965).

90. See *Barker v. Lull Eng'g Co.*, 20 Cal. 3d 413, 573 P.2d 443, 143 Cal. Rptr. 225 (1978); *Cronin v. J.B.E. Olson Corp.*, 8 Cal. 3d 121, 501 P.2d 1153, 104 Cal. Rptr. 433 (1972).

91. RESTATEMENT (SECOND) OF TORTS § 402A comment i states:

Many products cannot possibly be made entirely safe for all consumption, and any food or drug necessarily involves some risk of harm, if only from over-consumption. Ordinary sugar is a deadly poison to diabetics and castor oil found use under Mussolini as an instrument of torture. That is not what is meant by "unreasonably dangerous" in this Section. The article must be dangerous to an extent beyond that which would be contemplated by the ordinary consumer who purchases it, with the ordinary knowledge common to the community as to its characteristics. Good whiskey is not unreasonably dangerous merely because it will make some people drunk, and is especially dangerous to alcoholics; but bad whiskey, containing a dangerous amount of fuel oil, is unreasonably dangerous.

92. See *Barker v. Lull Eng'g Co.*, 20 Cal. 3d 413, 425, 573 P.2d 443, 451, 143 Cal. Rptr. 225, 233 (1978).

93. See *Cronin v. J.B.E. Olson Corp.*, 8 Cal. 3d 121, 132-33, 501 P.2d 1153, 1162, 104 Cal. Rptr. 433, 442 (1972).

to suggest either that the plaintiff must prove negligence or that something more than mere danger of the product must be shown.<sup>94</sup>

Perhaps most troublesome, however, is the fact that the term "unreasonably dangerous" is not supported by precedent.<sup>95</sup> The question that arises is why Dean Prosser, the Restatement reporter, used the phrase "unreasonably dangerous" in section 402A, rather than merely the word "defect" which would have more accurately reflected the developing case law. Some insight comes from the American Law Institute (ALI) Proceedings in 1961. The following is a discussion between Professor Reed Dickerson and the reporter, Dean Prosser, on a draft of section 402A (Food):

*Professor Dickerson:* . . . I would think that if he [the purchaser] showed that it [the product] was unreasonably dangerous, it would per se be legally defective, and it is only gilding the lily to add the word "defective."  
 . . . .

*Dean Prosser:* Mr. Dickerson has stated an original point of view which I first brought in to the Council of the American Law Institute in connection with this section. ". . . food in a condition unreasonably dangerous to the consumer" was my language. The Council then proceeded to raise the question of a number of products which, even though not defective, are in fact dangerous to the consumer—whiskey, for example [laughter]; cigarettes . . . and they raised the question whether "unreasonably dangerous" was sufficient to protect the defendant against possible liability in such cases.

Therefore, they suggested that there something must be [*sic*] wrong with the product itself, and hence the word "defective" was put in; but the fact that the product itself is dangerous, or even unreasonably dangerous, to people who consume it is not enough. There has to be something wrong with the product.

. . . "Defective" was put in to head off liability on the part of the seller of whiskey, on the part of the man who consumes it and gets delirium tremens, even though the jury might find that all whiskey is unreasonably dangerous to the consumer.<sup>96</sup>

This brief interchange makes it clear that Prosser originally drafted section 402A using the "unreasonably dangerous" test and only added the "defect" test at the urging of the ALI Council. Why, however, did he ignore the developing strict liability language of the cases for the old negligence phrase "unreasonably dangerous"? One may suggest that since Dean Prosser was such a central figure in the analysis and development of negligence law, he used the "unreasonably dangerous" test because he was familiar with it and had found it to be workable.<sup>97</sup> To be sure, the "unreasonably dangerous" test was never considered by the ALI in terms of products in general. Dean

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94. Keeton, *Product Liability and the Meaning of Defect*, 5 ST. MARY'S L.J. 30, 32 (1973); Wade, *On the Nature of Strict Tort Liability for Products*, 44 MISS. L.J. 825, 829-38 (1973).

95. See, e.g., *Greenman v. Yuba Power Prods., Inc.*, 59 Cal. 2d 57, 377 P.2d 897, 27 Cal. Rptr. 697 (1963); *Escola v. Coca-Cola Bottling Co.*, 24 Cal. 2d 453, 150 P.2d 436 (1944); *Henningens v. Bloomfield Motors*, 32 N.J. 358, 161 A.2d 69 (1960).

96. 38 ALI PROCEEDINGS 87-88 (1961).

97. See generally, PROSSER, *supra* note 1, at 139-205.

Wade recalls that the phrase "unreasonably dangerous" was never discussed by the Torts Section of the ALI as it might be applied to inedible products.<sup>98</sup> It was only debated in its application to food.<sup>99</sup>

### B. Risk-Benefit Test

The reason for the risk-benefit test is that strict liability is not insurance and any evaluation of a design hazard must necessarily involve the weighing of danger against utility.<sup>100</sup> Dean Keeton is the leading proponent of the risk-benefit test:

A product is defective if it is unreasonably dangerous as marketed. It is unreasonably dangerous if a reasonable person would conclude that the magnitude of the scientifically perceivable danger as it is proved to be at the time of trial outweighed the benefits of the way the product was so designed and marketed.<sup>101</sup>

Risk is determined by the likelihood of harm, the seriousness of the harm, and the nature of the danger.<sup>102</sup> Benefit, on the other hand, is determined by the need for the product, the feasibility of a safer design, and the availability of substitute products.<sup>103</sup>

In using the term "unreasonably dangerous," the risk-benefit test is flawed because it implies negligence and requires the plaintiff to prove more than defectiveness. To this extent it suffers the same shortcomings as the Restatement test.<sup>104</sup> Although the emphasis on magnitude of the risk and the benefit of the product is valid, the continuation of the "unreasonably dangerous" language is misleading.<sup>105</sup>

Dean Keeton agrees that the test closely parallels negligence, but goes on to explain that it "differs from negligence primarily because, as proposed, the danger in fact as proven at trial determines whether a product is good or bad. This difference would seem to be obvious."<sup>106</sup> This raises an additional issue. One of the most serious criticisms of the recent developments in strict liability is the determination of defect at the time of trial rather than at the time the

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98. Wade, *On the Nature of Strict Tort Liability for Products*, 44 MISS. L.J. 825, 831 (1973).

99. *Id.*

100. See Keeton, *Products Liability—Design Hazards and the Meaning of Defect*, 10 CUM. L. REV. 293, 313 (1979). See also Wade, *On the Nature of Strict Tort Liability for Products*, 44 MISS. L.J. 825, 828, 835 (1973).

101. Keeton, *Product Liability and the Meaning of Defect*, 5 ST. MARY'S L.J. 30, 37-38 (1973). See Wade, *On the Nature of Strict Tort Liability for Products*, 44 MISS. L.J. 825, 830-38 (1973). But see, Donaher, Fiehler, Twerski, and Weinstein, *The Technical Expert in Products Liability Litigation*, 52 TEX. L. REV. 1303, 1307 (1974).

102. Keeton, *Products Liability—Design Hazards and the Meaning of Defect*, 10 CUM. L. REV. 293, 314 (1979).

103. *Id.* at 314.

104. See notes 98-99 and accompanying text *supra*.

105. The California court recognized in 1972 that the Restatement's "unreasonably dangerous" test would force the plaintiff to prove negligence. *Cronin v. J.B.E. Olson Corp.*, 8 Cal. 3d 121, 132-33, 501 P.2d 1153, 1162, 104 Cal. Rptr. 433, 442 (1972). This was affirmed in 1978. *Barker v. Lull Eng'g Co.*, 20 Cal. 3d 413, 433, 573 P.2d 443, 456, 143 Cal. Rptr. 225, 238 (1978).

106. Keeton, *Products Liability—Design Hazards and the Meaning of Defect*, 10 CUM. L. REV. 293, 314-15 (1974).

product was manufactured.<sup>107</sup> The manufacturer can be liable even though he used the best design available when the article was first produced. This has spawned numerous legislative modifications to basic tort theory.<sup>108</sup>

### C. The California Test

The California Supreme Court has developed a bifurcated test for defect:

[A] product may be found defective in design, so as to subject a manufacturer to strict liability for resulting injuries, under either of two alternative tests. First, a product may be found defective in design if the plaintiff establishes that the product failed to perform as safely as an ordinary consumer would expect when used in an intended or reasonably foreseeable manner. Second, a product may alternatively be found defective in design if the plaintiff demonstrates that the product's design proximately caused his injury and the defendant fails to establish, in light of the relevant factors, that, on balance, the benefits of the challenged design outweigh the risk of danger inherent in such design.<sup>109</sup>

The main reason for this definition is to continue the California theory that the term "unreasonably dangerous" unfairly burdens the injured plaintiff with proof of an element that rings of negligence.<sup>110</sup> A second reason is that "it is simply impossible to eliminate the balancing or weighing of competing considerations in determining whether a product is defectively designed or not."<sup>111</sup>

The California test contains several potential traps. First, as Dean Wade has noted, the expectations of the ordinary consumer cannot be viewed as the yardstick for evaluating design defectiveness: "[I]n many situations . . . the consumer would not know what to expect, because he would have no idea how safe the product could be made."<sup>112</sup> Second, the most substantial flaw is use the words "proximate cause" in the second prong of the test. The term "proximate cause" is unclear and superfluous.<sup>113</sup> Findings of proximate cause and defect involve the same policy inquiries, and it is repetitious and misleading to ask whether the defect was the proximate cause of the damage. The social policy question is asked once when the court weighs the various factors to see whether the product is defective.<sup>114</sup> It is confusing to the court, the jury, and the attorneys to ask the same policy question again, but under a different label, proximate cause.

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107. See 4 U.S. DEPT. OF COMMERCE, INTERAGENCY TASK FORCE ON PRODUCT LIABILITY 91 (1977).

108. *Id.* at 101-03. See Vandall, *Undermining Torts Policies: Products Liability Legislation*, 30 AM. L. REV. 673 (1981).

109. *Barker v. Lull Eng'g Co.*, 20 Cal. 3d 413, 432, 573 P.2d 443, 455-56, 143 Cal. Rptr. 225, 237-38 (1978).

110. *Id.* at 433, 573 P.2d at 456, 143 Cal. Rptr. at 238.

111. *Id.*

112. Wade, *On the Nature of Strict Tort Liability for Products*, 44 MISS. L.J. 825, 825, 829 (1973).

113. See *Proximate Cause* (pt. 3), *supra* note 38, at 758-59.

114. See Wade, *On the Nature of Strict Tort Liability for Products*, 44 MISS. L.J. 825, 837-41 (1973).

### D. Negligence With Imputed Knowledge

The Oregon Supreme Court has developed a test based upon a modification of the traditional negligence approach:

A dangerously defective article would be one which a reasonable person would not put into the stream of commerce *if he had knowledge of its harmful character*. The test, therefore, is whether the seller would be negligent if he sold the article *knowing of the risk involved*. Strict liability imposes what amounts to constructive knowledge of the condition of the product.<sup>115</sup>

This test is embraced by both Dean Wade and Dean Keeton.<sup>116</sup> The two professors disagree on whether it is a test of negligence, however. Dean Wade says, "It may be argued that this is simply a test of negligence. Exactly."<sup>117</sup> Dean Keeton, in contrast, states, "Since the test is not one of negligence, it is not based upon the risks and dangers that the makers should have, in the exercise of ordinary care, known about."<sup>118</sup> The Oregon court adds that "[t]he Wade and Keeton formulations of the standard appear to be identical except that Keeton would impute the knowledge of dangers to the manufacturer at time of trial, while Wade would impute only the knowledge existing at the time the product was sold."<sup>119</sup>

The most obvious problem with the test is the use of the term negligent. The courts consistently have held that strict liability is not a matter of negligence.<sup>120</sup> In addition, the imposition of constructive knowledge by the Oregon court is not new. This is often done when circumstantial evidence is strong enough to permit an inference that the manufacturer had knowledge of the defect, even though he insists he had no knowledge.<sup>121</sup> In summary, the "negligence with imputed knowledge" test for defect would require the plaintiffs to prove negligence. This is contrary to the cases and to the fundamental reasons supporting strict liability.<sup>122</sup>

### E. The Communicative Tort

Dean Leon Green has suggested a solution to the strict liability quagmire, proposing "a communicative tort action based on the duty to inform or to give reliable information, set off distinctly from the . . . negligence action based

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115. *Phillips v. Kimwood Mach. Co.*, 269 Or. 485, 492, 525 P.2d 1033, 1036 (1974).

116. See Keeton, *Manufacturer's Liability: The Meaning of "Defect" in the Nature and Design of Products*, 20 SYRACUSE L. REV. 559, 568 (1969); Wade, *Strict Tort Liability of Manufacturers*, 19 SW. L.J. 5, 15-16 (1965).

117. Wade, *Strict Tort Liability of Manufacturers*, 19 SW. L.J. 5, 15 (1965).

118. Keeton, *Manufacturer's Liability: The Meaning of "Defect" in the Manufacture and Design of Products*, 20 SYRACUSE L. REV. 559, 568 (1969).

119. See discussion in *Phillips v. Kimwood Mach. Co.*, 269 Or. 485, 492 n.6, 525 P.2d 1033, 1036 n.6 (1974).

120. See, e.g., *Barker v. Lull Eng'g Co.*, 20 Cal. 3d 413, 573 P.2d 443, 143 Cal. Rptr. 205 (1978); *Cronin v. J.B.E. Olson Corp.*, 8 Cal. 3d 121, 501 P.2d 1153, 104 Cal. Rptr. 433 (1972).

121. See Prosser, *The Fall of the Citadel (Strict Liability to the Consumer)*, 50 MINN. L. REV. 791, 840-45 (1966).

122. See *Barker v. Lull Eng'g Co.*, 20 Cal. 3d 413, 573 P.2d 443, 143 Cal. Rptr. 225 (1978); *Cronin v. J.B.E. Olson Corp.*, 8 Cal. 3d 121, 501 P.2d 1153, 104 Cal. Rptr. 443 (1972).



on the duty of care."<sup>123</sup> Dean Green suggests that sellers should be informed that if their defective product injures a consumer because of the absence of a warning or adequate instructions, they will be held liable.<sup>124</sup> In short, sellers will be taken at their word.<sup>125</sup> The reason for the new tort is the "corporate seller's command of all the media of communications to support his aggressive campaigns."<sup>126</sup>

As usual, the late Dean Green has performed an invaluable service by pointing the courts toward one of the most critical elements of products liability: information, or lack of information, communicated by the seller. It is unlikely, however, that the communicative tort will be fully adopted by the courts because it is drafted in unfamiliar language. In addition, the amount of information communicated by the seller has little impact on a case brought by a bystander or donee.<sup>127</sup> In some cases, however, the nature of the warning or instructions is determinative.<sup>128</sup>

#### F. Cheapest Cost Avoider

Professor Guido Calabresi has done much to clarify fundamental concepts in strict liability through the application of economic analysis.<sup>129</sup> In applying these principles, he has found that the cost-benefit test, as put forward by Judge Learned Hand, is insufficient: "The present Learned Hand test tends to make injurers richer at the expense of victims."<sup>130</sup> He argues that the reason for strict liability is not merely to accomplish distributional goals.<sup>131</sup> The reason for the trend toward strict liability, as in *respondeat superior*, ultra hazardous activity liability, and worker's compensation is

123. Green, *Strict Liability Under Sections 402A and 402B: A Decade of Litigation*, 54 TEX. L. REV. 1185, 1188 (1976).

124. *Id.* at 1191.

125. *Id.*

126. *Id.* at 1190.

127. Some of the most conceptually difficult products liability cases are those brought by bystanders. *See, e.g.,* *Elmore v. American Motors Corp.*, 70 Cal. 2d 578, 451 P.2d 84, 75 Cal. Rptr. 652 (1969).

128. *See Borel v. Fiberboard Paper Prods. Corp.*, 493 F.2d 1076 (5th Cir. 1973), *cert. denied*, 419 U.S. 869 (1974); *Burch v. Amsterdam Corp.*, 366 A.2d 1079 (D.C. 1976); *Michael v. Warner/Chilcott*, 91 N.M. 651, 579 P.2d 183 (Ct. App. 1978).

129. *See generally* G. CALABRESI, *THE COSTS OF ACCIDENTS* (1970); Calabresi and Hirschhoff, *Toward a Test for Strict Liability in Torts*, 81 YALE L.J. 1055 (1972).

130. Calabresi, *Toward a Test for Strict Liability in Torts*, 81 YALE L.J. 1055, 1077 (1970). Professor Calabresi has criticized sellers for suggesting a products liability crisis. The sellers want to shift the loss to the consumers or the government, but Professor Calabresi argues that this violates a basic principle of economics: taking risks is what corporations do best. Calabresi, *Product Liability: Curse or Bulwark of Free Enterprise*, 27 CLEV. ST. L. REV. 313, 321 (1973).

Professor Posner appears to define strict liability as absolute liability: "Even if strict liability had no effect whatever on safety, it would have an economic effect: it would compel the manufacturer to insure consumers against accidents resulting from nonnegligent defects in his product." R. POSNER, *ECONOMIC ANALYSIS OF LAW* 137 (2d ed. 1977). He then criticizes strict liability, thus defined, because it fails to balance cost against benefit. In products cases, Professor Posner clearly prefers the negligence approach as defined by Learned Hand. In an apparent oversight, he evaluates contributory negligence and mishandling as defenses to strict liability, but fails to consider the economic impact of assumption of risk in product liability cases. *Id.* at 137-42. *But see id.* at 127-28.

131. Calabresi, *Toward a Test for Strict Liability in Torts*, 81 YALE L.J. 1055, 1077 (1970).

based "at least in part on a desire to accomplish better primary accident cost reduction."<sup>132</sup>

In order to achieve such accident cost reduction, Professor Calabresi suggests a novel test:

The strict liability test we suggest does not require that a government institution make such a cost-benefit analysis. It requires of such an institution only a decision as to which of the parties to the accident *is in the best position to make the cost-benefit analysis between accident costs and accident avoidance costs and to act on that decision once it is made.* The question for the court reduces to a search for the cheapest cost avoider.<sup>133</sup>

For example, "a violinist is the best evaluator of the relative advantages and costs of working in a steel mill, with regard to the suffering he will feel if he loses his hand. . . ."<sup>134</sup>

By setting forth an economic test for strict liability, Professor Calabresi has performed a substantial service. However, the cheapest cost-avoider test is framed in nonjudicial terminology and is, therefore, unlikely to be adopted by the courts. In addition, products liability suits usually pit a relatively unsophisticated consumer or user against a knowledgeable seller.<sup>135</sup> In these cases the cheapest cost avoider is always going to be the seller. To this extent, the Calabresi test reflects absolute liability.

### G. Absolute Liability

One approach to products liability is to hold the seller liable for all injuries caused by the product. Absolute liability was first suggested as a basis for products liability by Justice Traynor in *Escola v. Coca-Cola*.<sup>136</sup> "In my opinion it should now be recognized that a manufacturer incurs an absolute liability when an article that he has placed on the market, knowing that it is to be used without inspection, proves to have a defect that causes injury to human beings."<sup>137</sup> His reason for absolute liability is that "the risk of injury can be insured by the manufacturer and distributed among the public as a cost of doing business."<sup>138</sup>

The far-reaching and unknowable scope of this liability has led the courts and the commentators to reject it summarily. Professor Calabresi, for example, concluded: "Strict liability has never meant that the party held strictly liable is to be a general insurer of the victim no matter how or where the victim comes to grief."<sup>139</sup> In like manner, Dean Keeton reported, "[T]he

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132. *Id.* at 1075.

133. *Id.* at 1060.

134. *Id.* at 1069.

135. *Id.*

136. 24 Cal. 2d 453, 150 P.2d 436 (1944).

137. *Id.* at 461, 150 P.2d at 440 (Traynor, J., concurring).

138. *Id.* at 462, 150 P.2d at 441.

139. Calabresi, *Toward a Test for Strict Liability in Torts*, 81 YALE L.J. 1055, 1056 (1970). "General insurance was not the rule in classical instances of strict liability, such as ultrahazardous activities, or in legislatively mandated instances, such as workmen's compensation, and it is not the rule in the recent instances of application such as products liability." *Id.*

product must be defective as marketed in order to subject the manufacturer to liability."<sup>140</sup> No court dealing with products liability has followed Traynor's position on absolute liability.<sup>141</sup>

Clearly then, strict liability is not absolute liability. The seller is not an insurer and is not liable for all injuries caused by the product. The scope of liability is the central question in products liability cases and the answer to the question is determined by the concept of defect.<sup>142</sup>

## H. Causation

Professor Richard Epstein critiques the common theories of negligence and strict liability in developing a doctrine of strict liability resting upon causation: "[T]he concept of causation, as it applies to cases of physical injury, can be analyzed in a matter [*sic*] that both renders it internally coherent and relevant to the ultimate question who shall bear the loss."<sup>143</sup> In doing this he rejects the traditional two-step, cause in fact and proximate cause, analysis of causation.<sup>144</sup> Epstein redefines many of the basic torts concepts to such an extent that it is unlikely his theory will gain much of a judicial following.<sup>145</sup> For example, he states, "Negligence and intent should be immaterial to the prima facie case of assault, and for the same reasons as with trespass,"<sup>146</sup> and, "There will be no attempt to give a single semantic equivalent to the concept of causation."<sup>147</sup>

Epstein's theory is a throwback to simpler, earlier times: "Briefly put, the argument is that proof of the proposition A hit B should be sufficient to establish a prima facie case of liability. . . . The choice is plaintiff or defendant, and the analysis of causation is the tool which, prima facie, fastens responsibility upon the defendant."<sup>148</sup> Just as the term "foreseeability" has failed by becoming overloaded, Epstein's attempt to make causation solve all of torts' problems will likely be unsuccessful.<sup>149</sup>

140. Keeton, *Product Liability and the Meaning of Defect*, 5 ST. MARY'S L.J. 30, 33 (1973).

141. See, e.g., *Barker v. Lull Eng'g Co.*, 20 Cal. 3d 413, 417, 573 P.2d 443, 446, 143 Cal. Rptr. 225, 228 (1978); *Phillips v. Kimwood Mach. Co.*, 269 Or. 581, 525 P.2d 1033 (1974).

142. Keeton, *Product Liability and the Meaning of Defect*, 5 ST. MARY'S L.J. 30, 33, 39 (1973).

143. Epstein, *A Theory of Strict Liability*, 2 J. LEGAL STUD. 151, 165 (1973).

144. *Id.* at 160.

145. *Id.* at 160-89. See also, Epstein, *Defenses and Subsequent Pleas in a System of Strict Liability*, 3 J. LEGAL STUD. 165 (1974).

146. Epstein, *A Theory of Strict Liability*, 2 J. LEGAL STUD. 151, 173 (1973).

147. *Id.* at 165-66.

148. *Id.* at 168-69. Cf. *Brown v. Kendall*, 60 Mass. (6 Cush.) 292 (1850): "These dicta are no authority . . . for holding, that damage received by a direct act of force from another will be sufficient to maintain an action of trespass, whether the act was lawful or unlawful, and neither wilful, intentional, or careless." *Id.* at 295.

Indeed, Professor Epstein reflects the tort law of 1466: "[I]f a man does a thing he is bound to do it in such a manner that by his deed no injury or damage is inflicted upon others." Anonymous, Y.B. 6 Edw. 4, f. 7a, pl. 18 (K.B. 1466).

149. See *Proximate Cause* (pts. 1 & 3), *supra* note 38, at 474-90, 771-76.

## IV. COMPARATIVE FAULT

The theory behind comparative fault is that the jury should weigh the wrongful act of the plaintiff against the wrongful act of the defendant in determining damages.<sup>150</sup> The purpose of this section is to examine the application of comparative fault to strict liability to discover if it effects a change in the definition of defect. This is not the place to evaluate all of the various defenses to a strict liability action, as that has been done elsewhere.<sup>151</sup>

An analysis of comparative fault begins with contributory negligence. Historically, contributory negligence was not recognized as a defense to strict liability because strict liability did not rest upon negligence.<sup>152</sup> On the other hand, assumption of risk, in certain forms, was accepted as a defense to strict liability.<sup>153</sup> More importantly, the Uniform Comparative Fault Act was drafted in 1977, and contemporaneously several state supreme courts have applied comparative fault in strict liability actions.<sup>154</sup> These recent developments raise the question of whether applying comparative fault to a strict liability cause of action reshapes strict liability into negligence.<sup>155</sup>

Several reasons have been suggested for refusing to apply comparative fault to a strict liability action.<sup>156</sup> First, "apples and oranges" cannot be compared. That is, comparative fault means comparative negligence and is only applicable in a negligence action. One cannot compare the conduct of the plaintiff, under comparative fault, with the defect of a product, which in a strict liability action need not have been the result of negligence.<sup>157</sup> The second objection is that if comparative fault is applied to strict liability, "a manufacturer's incentive to produce safe products will . . . be reduced or removed."<sup>158</sup> One of the purposes of strict liability is to prevent defective products. If the manufacturer is not held strictly liable or if the damages are reduced, then the incentive to avoid defective products will be reduced.

The California Supreme Court responded to these contentions in *Daly v. General Motors Corporation*.<sup>159</sup> In reply to the "apples and oranges" or "apples and stepladders" argument, the court stated:

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150. See *Daly v. General Motors*, 20 Cal. 3d 725, 575 P.2d 1162, 144 Cal. Rptr. 380 (1978).

151. See generally, Epstein, *Products Liability: Defenses Based on Plaintiff's Conduct*, 1968 UTAH L. REV. 267; Noel, *Defective Products: Abnormal Use, Contributory Negligence, and Assumption of Risk*, 25 VAND. L. REV. 93 (1972); Seidelson, *The 402A Defendant and the Negligent Actor*, 15 DUQ. L. REV. 371, 377-79 (1977).

152. *Devaney v. Sarno*, 125 N.J. Super 414, 417, 311 A.2d 208, 209 (1973).

153. *Id.* at 417-19, 311 A.2d at 209-10.

154. See, e.g., *Daly v. General Motors Corp.*, 20 Cal. 3d 725, 575 P.2d 1162, 144 Cal. Rptr. 380 (1978); Wade, *Products Liability and Plaintiff's Fault—The Uniform Comparative Fault Act*, 29 MERCER L. REV. 373 (1978).

155. See *Daly v. General Motors Corp.*, 20 Cal. 3d 725, 575 P.2d 1162, 144 Cal. Rptr. 380, 399 (1978) (Mosk, J., dissenting).

156. See generally *id.*; Wade, *Products Liability and Plaintiff's Fault—The Uniform Comparative Fault Act*, 29 MERCER L. REV. 373, 376-81 (1978).

157. *Daly v. General Motors Corp.*, 20 Cal. 3d 725, 575 P.2d 1162, 144 Cal. Rptr. 380, 385 (1978).

158. *Id.* at 737, 575 P.2d at 1169, 144 Cal. Rptr. at 387.

159. *Id.* at 725, 575 P.2d at 1162, 144 Cal. Rptr. at 380.

"We think it clear that the adoption of a system of comparative negligence should entail the merger of the defense of assumption of risk into the general scheme of assessment of liability in proportion to fault in those particular cases in which the form of assumption of risk involved is no more than a variant of contributory negligence."<sup>160</sup>

The court added that "fixed semantic consistency . . . is less important than the attainment of a just and equitable result."<sup>161</sup>

In dealing with the argument that comparative fault will reduce the manufacturer's incentive to produce safe products, the court held that the manufacturer cannot avoid its responsibility for defective products even when the plaintiff's conduct has contributed to his injury.<sup>162</sup> Indeed, "its exposure will be lessened only to the extent that the trier finds that the victim's conduct contributed to his injury."<sup>163</sup> In answering the objection that jurors cannot compare plaintiff's negligence with defendant's strict liability, the court looked at the maritime doctrine of "unseaworthiness" and found that it was analogous to the application of comparative fault to strict liability.<sup>164</sup> The court found that "[n]o serious practical difficulties appear to have arisen even where jury trials are involved."<sup>165</sup> The California Supreme Court's conclusion is buttressed by the position taken by the Uniform Comparative Fault Act that comparative fault should apply whether the action is based on negligence, breach of warranty, or strict tort liability.<sup>166</sup>

Comparative fault should apply to the doctrine of strict liability. The most compelling reason for this is presented by Dean Wade: "Why is it desirable to transfer to the other users of the product—all innocent—the cost of that part of the plaintiff's injury that is attributable to his own fault?"<sup>167</sup> As to the practical difficulties of the jury comparing "apples and oranges," Professor Twerski's response seems accurate: the members of the jury must merely close their eyes and do it.<sup>168</sup> Finally, the most substantial reason for

160. *Id.* at 735, 575 P.2d at 1167, 144 Cal. Rptr. at 385 (quoting *Li v. Yellow Cab Co.*, 13 Cal. 3d 804, 825, 532 P.2d 1226, 1241, 119 Cal. Rptr. 858, 873 (1975)).

161. *Id.* at 736, 575 P.2d at 1168, 144 Cal. Rptr. at 386.

162. *Id.* at 737, 575 P.2d at 1169, 144 Cal. Rptr. at 387.

163. *Id.*

164. *Id.* at 738, 575 P.2d at 1170, 144 Cal. Rptr. at 388.

For decades, seamen have been permitted to recover from shipowners for injuries caused by defects rendering a vessel "unseaworthy." . . . As noted by many courts, the concept of "unseaworthiness" is not limited to or affected by notions of the shipowner's fault or due care, but applies to any deficiency of hull, equipment or crew, regardless of cause, which renders the ship less than reasonably fit for its intended purposes. . . . Nonetheless, comparative principles have been made applicable to suits brought under the "unseaworthiness" doctrine, a form of strict liability, and the degree to which plaintiff's own negligence contributes to his injuries has been considered in determining the amount of his recovery.

*Id.*

165. *Id.* at 739, 575 P.2d at 1170, 144 Cal. Rptr. at 388.

166. Wade, *Products Liability and Plaintiff's Fault—The Uniform Comparative Fault Act*, 29 MERCER L. REV. 373, 374 (1978).

167. *Id.* at 379.

168. Twerski, *The Use and Abuse of Comparative Negligence in Products Liability*, 10 IND. L. REV. 797, 806 (1977).

applying comparative fault to strict liability is fairness.<sup>169</sup> There is no reason why the manufacturer should be burdened with losses suffered by the consumer when those losses are attributable to an intentional act or assumed risk on the part of the consumer.<sup>170</sup>

One caution has to be raised in considering this issue, however. In the United States we lack a universal health care system and, therefore, to whatever extent the plaintiff in a products liability suit is at fault and has his damages reduced under comparative fault, the plaintiff may be forced to rely upon Medicare, Medicaid, or welfare for assistance.<sup>171</sup> All consumers do not have sufficient insurance to cover injuries that may occur in dealing with defective products, even if those injuries may be brought about by their own fault.

The doctrine of comparative fault, based on assumption of risk, should apply regardless of whether the cause of action is negligence, warranty, or strict liability.<sup>172</sup> Further, it should apply regardless of the particular test for defect.<sup>173</sup> Comparative fault does not change strict liability into negligence as long as the jury is clearly instructed first to apply strict liability theory to the seller to determine liability.<sup>174</sup> After answering that question the jury should then look at the nature of the plaintiff's conduct in order to calculate damages.<sup>175</sup>

## V. DEFECT: A FUNCTIONAL APPROACH

The history of strict liability in the products area reflects a movement away from the vague and misleading concepts of privity, imminently dangerous articles, negligence, and implied warranty and toward a clear statement of the operative policies to be considered in deciding whether a manufacturer should be held liable for the damages caused by his product.<sup>176</sup> These policies find expression in the defect concept. One reason for confusion in the definition of defect is the failure to analyze the function of the concept in products liability litigation. There is a need, therefore, to express the defect test in terms of the allocation of authority between the court and the jury.

### A. *The Court*

Defect is a matter of social policy for the court to decide as part of its responsibility in controlling the jury. For example, the effectiveness of a

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169. See Wade, *Products Liability and Plaintiff's Fault—The Uniform Comparative Fault Act*, 29 MERCER L. REV. 373, 379 (1978). Compare with Twerski, *The Use and Abuse of Comparative Negligence in Products Liability*, 10 IND. L. REV. 797, 798-800 (1977).

170. *Daly v. General Motors Corp.*, 20 Cal. 3d 725, 737, 575 P.2d 1162, 1169, 144 Cal. Rptr. 380, 387 (1978).

171. See G. CALABRESI, *THE COSTS OF ACCIDENTS* 284-85 (1970).

172. Wade, *Products Liability and Plaintiff's Fault—The Uniform Comparative Fault Act*, 29 MERCER L. REV. 373, 374 (1978).

173. See text accompanying notes 88-149 *supra*.

174. See *Daly v. General Motors Corp.*, 20 Cal. 3d 725, 743, 575 P.2d 1162, 1172-73, 144 Cal. Rptr. 380, 390-91 (1978).

175. *Id.*

176. See *Barker v. Lull Eng'g Co.*, 20 Cal. 3d 413, 573 P.2d 443, 143 Cal. Rptr. 225 (1978); *Greenman v. Yuba Power Prods., Inc.*, 59 Cal. 2d 57, 377 P.2d 897, 27 Cal. Rptr. 697 (1963).

Jeep's roll bar,<sup>177</sup> the placement of a Pinto's gas tank,<sup>178</sup> the front end of a Volkswagen bus,<sup>179</sup> and the top speed of a Chevrolet<sup>180</sup> are all matters of social policy. Of course, there may be questions of fact involved in the case, such as whether the explosion resulted from the gas tank hitting the differential or from a bystander lighting a match. Such cause in fact questions are left to the jury.<sup>181</sup> If the defect question is such that "reasonable minds could not differ," then the court should direct a verdict. For example, if the court found that the lack of visibility of a child's bike could be cured by a fifty cent reflector, the court could direct a verdict for the plaintiff on the question of defect.<sup>182</sup> If the court has doubts about the product's being defective, then the question of defect should be given to the jury.

The court's test for whether the product is defective involves a balancing of operative factors. First, the court must consider that the reasons for strict liability are to shift the loss from the consumer to the seller and that the loss should be borne by the person who created it.<sup>183</sup> Second, the court should weigh: (1) the product's utility, including style or aesthetic appeal;<sup>184</sup> (2) the alternative designs;<sup>185</sup> (3) the substitute products;<sup>186</sup> (4) the likelihood of injury;<sup>187</sup> (5) the nature of the injury;<sup>188</sup> (6) the cost of making the product safer;<sup>189</sup> (7) the availability and effectiveness of warnings;<sup>190</sup> (8) the ability of the seller to obtain insurance or otherwise carry the loss;<sup>191</sup> (9) the impact

177. See *Leichtamer v. American Motors Corp.*, 67 Ohio St. 2d 456, 424 N.E.2d 568 (1981); *Turner v. General Motors Corp.*, 514 S.W.2d 497 (Tex. Civ. App. 1974).

178. *Grimshaw v. Ford Motor Co.*, No. 19-77-61 (Orange County (Cal.) Super. Ct., March 30, 1978); *Harris, Why the Pinto Jury Felt Ford Deserved \$125 Million Penalty*, Wall St. J., Feb. 14, 1978, at 1, col. 4; *Bruck, How Ford Stalled the Pinto Litigation*, Am. Law., June, 1979, at 23.

179. *Dreisonstok v. Volkswagenwerk, A.G.*, 489 F.2d 1066 (4th Cir. 1974).

180. In *Schemel v. General Motors Corp.*, 384 F.2d 802 (7th Cir. 1967), the court apparently wanted to avoid deciding the appropriate maximum speed for a car. The goal was to avoid this administrative quagmire.

181. See *Proximate Cause* (pt. 1), *supra* note 38, at 475.

182. See *Schwinn Sales South v. Waters*, 126 Ga. App. 385, 190 S.E.2d 815 (1972).

183. This policy was enunciated in *Greenman v. Yuba Power Prods., Inc.*, 59 Cal. 2d 57, 377 P.2d 897, 27 Cal. Rptr. 697 (1963), and in *Escola v. Coca-Cola Bottling Co.*, 24 Cal. 2d 453, 150 P.2d 436 (1974).

184. See, e.g., discussion of the boxy V.W. van in *Dreisonstok v. Volkswagenwerk, A.G.*, 489 F.2d 1066 (4th Cir. 1974).

185. See, e.g., the controversy over the location of the Pinto gas tank, *Grimshaw v. Ford Motor Co.*, No. 19-77-61 (Orange County (Cal.) Super. Ct., March 30, 1978); a steam vaporizer with a lid that falls off and a child is scalded, *McCormack v. Hanks Craft Co.*, 278 Minn. 322, 154 N.W.2d 488 (1967); a fondue pot handle that permits the pot to rotate when hot (and filled with oil), *Ellis v. Rich's, Inc.*, 233 Ga. 573, 212 S.E.2d 373 (1975).

186. For example, is there a substitute for "red dye number two" as a food coloring? Are there other less dangerous drugs that accomplish the same result? In contrast, there is no substitute for blood. *Hines v. St. Joseph's Hosp.*, 86 N.M. 763, 527 P.2d 1075 (1974).

187. For example, there is a substantial likelihood of injury from a vaporizer with a non-locking lid. *McCormack v. Hanks Craft Co.*, 278 Minn. 322, 154 N.W.2d 488 (1967).

188. If there is an injury, will it be minor or serious? Jagged threads on a drum of gasoline are likely to produce an explosion and serious injuries. *Gulf Refining Co. v. Williams*, 183 Miss. 723, 185 So. 234 (1938).

189. See *Schwinn Sales South v. Waters*, 126 Ga. App. 385, 190 S.E.2d 815 (1972). Reflectors could be placed on a child's bike by the manufacturer for a few cents.

190. The seller may be liable for failure to include an adequate warning. See *Crane v. Sears Roebuck & Co.*, 218 Cal. App. 2d 855, 32 Cal. Rptr. 754 (1963); *Incollingo v. Ewing*, 444 Pa. 263, 282 A.2d 206 (1971). See generally Noel, *Products Defective Because of Inadequate Directions or Warnings*, 23 SW. L.J. 256 (1969); Twerski, Weinstein, Donaher, and Piehler, *The Use and Abuse of Warnings in Product Liability—Design Defect Litigation Comes of Age*, 61 CORNELL L. REV. 495 (1976).

191. See *Greenman v. Yuba Power Prods., Inc.*, 59 Cal. 2d 57, 377 P.2d 897, 27 Cal. Rptr. 697 (1963); *Henningsen v. Bloomfield Motors*, 32 N.J. 358, 161 A.2d 69 (1960). See generally G. CALABRESI, *THE COSTS OF ACCIDENTS* 39-60, 103-25, 168-284, 313-14 (1970).

upon society of finding the product defective;<sup>192</sup> (10) the experimental nature of the product.<sup>193</sup> This is not an exclusive list, and the court may consider other factors that it deems relevant.

No priority is given to the ten secondary factors. This is because the weight allocated to each factor will vary with the facts of the case. For example, cost is the key factor in deciding whether a child's bicycle should have factory installed reflectors;<sup>194</sup> prevention and cost are both involved in deciding whether a forage wagon should have protective covers on the conveyor belt;<sup>195</sup> and the utility (the cargo carrying ability) of the Volkswagen bus is the most important policy in deciding whether the engine should be in the front or the rear.<sup>196</sup>

The test clearly informs the court of the primary precedential reason for strict liability: loss shifting.<sup>197</sup> In addition, it states explicitly the policies that are relevant to holding a manufacturer liable. It avoids "squid function" words such as proximate cause and foreseeability.<sup>198</sup> The test excises negligence from strict liability, except to the extent that the "likelihood of injury" is retained. This is a relevant consideration, but not necessarily determinative. The test is not whether the seller was negligent, but whether, after balancing all of the operative factors—including the foundation concept of loss shifting—the seller of the product should be held liable. The test assumes that strict liability is not absolute liability and the seller is not, in all cases, an insurer of plaintiff's loss.<sup>199</sup>

### B. *The Jury*

There is little agreement on the formulation of jury instructions covering defect.<sup>200</sup> Several approaches have been suggested. First, Dean Wade's factors<sup>201</sup> might be submitted to the jury as the ones they should weigh in deciding whether the product was defective. This approach has been criticized on the basis that the jury is not sophisticated enough to handle the

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192. See Green, *Proximate Cause* (pt. 3), *supra* note 38, at 757. See generally *Schemel v. General Motors Corp.*, 384 F.2d 802 (7th Cir. 1976).

193. For example, "It is also true . . . of many new or experimental drugs as to which, because of lack of time and opportunity for sufficient medical experience, there can be no assurance of safety . . . but such experience as there is justifies the marketing and use of the drug notwithstanding a medically recognizable risk." RESTATEMENT (SECOND) OF TORTS § 402A comment k (1965). With any experimental product, clear and detailed warnings of risks would, of course, be necessary.

194. See generally *Schwinn Sales South v. Waters*, 127 Ga. App. 384, 190 S.E.2d 815 (1972).

195. See *Winnett v. Winnett*, 57 Ill. 2d 7, 310 N.E.2d 1 (1974).

196. *Dreisonstok v. Volkswagenwerk, A.G.*, 489 F.2d 1066, 1074 (4th Cir. 1974).

197. See text accompanying notes 6-31 *supra* for a discussion of the evolution of the loss-shifting policy.

198. See text accompanying notes 32-66 *supra*; see generally *Proximate Cause* (pts. 1-3), *supra* note 38.

199. See Calabresi and Hirschhoff, *Toward a Test for Strict Liability in Torts*, 81 YALE L.J. 1055, 1060-68 (1972); Keeton, *Product Liability and the Meaning of Defect*, 5 ST. MARY'S L.J. 30, 30, 33 (1973).

200. See *Barker v. Lull Eng'g Co.*, 20 Cal. 3d 413, 427-29, 573 P.2d 443, 452-53, 143 Cal. Rptr. 225, 234-35 (1978); *Phillips v. Kimwood Mach. Co.*, 269 Or. 485, 499-501, 525 P.2d 1033, 1040-41 (1974); Keeton, *Product Liability and the Meaning of Defect*, 5 ST. MARY'S L.J. 30, 35-36 (1973).

201. Wade, *Strict Tort Liability of Manufacturers*, 19 SW. L.J. 5, 17 (1965).



subtle issues involved in weighing these complex factors.<sup>202</sup> Second, the jury might simply be asked: "Was the product defective?"<sup>203</sup> A third approach emerged in *Barker v. Lull Engineering*,<sup>204</sup> in which the California Supreme Court was faced with an important issue: whether the trial court could define defect, or whether it must ask the jury to determine, "[W]as the product defective?"<sup>205</sup> The court responded that the charge to the jury in a strict liability case has two elements:

[I]n design defect cases, a court may properly instruct the jury that a product is defective in design if (1) the plaintiff proves that the product failed to perform as safely as an ordinary consumer would expect when used in an intended or reasonably foreseeable manner, or (2) the plaintiff proves that the product's design proximately caused injury and that defendant fails to prove, in light of the relevant factors, that on balance the benefits of the challenged design outweigh the risk of danger inherent in such design.<sup>206</sup>

The first part of the *Barker* test raises two substantial problems. As mentioned earlier, the first is the standard of what the ordinary consumer would expect. Although the court was clear in stating that consumer expectations are merely a floor, and not a ceiling, in deciding whether a product is defective, it is possible that a court or a jury may misinterpret the term and find that a product is not defective merely because the consumer had no expectations concerning the quality of the product.<sup>207</sup> The second problem is the term "foreseeable." If the definition of defect is essentially a matter of social policy, and if, as Dean Green states, the question of foreseeability is a red herring, obscuring what is in fact being weighed, then the use of the term "foreseeable" is misleading.<sup>208</sup>

The second part of the *Barker* test likely will prove unworkable because it rests upon one of the most troublesome terms in tort law, "proximate cause."<sup>209</sup> Both of the *Barker* tests fail to indicate that the historical reason for strict liability is to shift the loss to the seller.

A better approach is to charge the jury with the same test for defect that I have suggested should be used by the court in deciding whether there is sufficient evidence of defect to give to the jury. That is, the jury should be charged to weigh the appropriateness of loss shifting, as well as the other important factors.<sup>210</sup> In reply to those who argue that the jury is too unsophisticated to evaluate such complex issues as loss shifting, substitutability of

202. See generally Green, *Strict Liability Under Sections 402A and 402B: A Decade of Litigation*, 54 TEX. L. REV. 1187, 1218-20 (1976); Keeton, *Products Liability and the Meaning of Defect*, 5 ST. MARY'S L.J. 30 (1973).

203. *Cronin v. J.B.E. Olson Corp.*, 8 Cal. 3d 121, 133, 501 P.2d 1153, 1162, 104 Cal. Rptr. 433, 442 (1972).

204. *Barker v. Lull Eng'g Co.*, 20 Cal. 3d 413, 573 P.2d 443, 143 Cal. Rptr. 225 (1978).

205. *Id.* at 417, 573 P.2d at 446, 143 Cal. Rptr. at 228.

206. *Id.* at 426-27, 573 P.2d at 452, 143 Cal. Rptr. at 234.

207. Keeton, *Products Liability—Design Hazards and the Meaning of Defect*, 10 CUM. L. REV. 302-05 (1979).

208. See generally *Proximate Cause* (pts. 1-3), *supra* note 38.

209. See text accompanying notes 32-66 *supra*.

210. See text accompanying notes 178-99 *supra*.

other products, and prevention of injury, it must be remembered that the products liability jury likely has gone through weeks or months of expert testimony on such complex questions as modification costs, alternatives, utility of the product, metal stress, attractiveness of the product, and sales problems.<sup>211</sup> The jury should be charged to weigh what they have heard during the trial which is, in large part, social policy. To do other than this is to force the attorneys to emphasize concepts, such as proximate cause, foreseeability, and remoteness, that may mislead the jury.<sup>212</sup>

## VI. CONCLUSION

Strict liability in the products cases grew out of actions, against businesses and corporations, related to the purpose of the enterprises, selling products. In contrast, negligence was developed largely to handle disputes between individuals. When a corporation was a defendant in a negligence suit, the activity in issue usually was incidental to the purpose of the enterprise, for example, a train setting a fire on fire.<sup>213</sup> The court, in deciding the negligence issue, first decided the case and then articulated the result in vague terms such as "foreseeability" and "proximate cause."<sup>214</sup>

The courts, in deciding strict products liability cases, very early recognized that they were dealing with large sellers, manufacturers, wholesalers, and retailers, however.<sup>215</sup> They sensed that vague phrases were inadequate for dealing with these defendants and, therefore, rested their strict liability decisions on operational factors, such as loss shifting, insurance, and modification cost.<sup>216</sup> The proposed test implements this unarticulated judicial perception.

The proposed test for defect reflects the products liability cases beginning in 1842. It draws a line between negligence and strict liability, while using a framework that is familiar to the courts. The test presents the operative factors that the courts have used in deciding products cases and reestablishes

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211. See Donaher, Piehler, Twerski, and Weinstein, *The Technological Expert in Products Liability Litigation*, 52 TEX. L. REV. 1303, 1310-12 (1974).

212. An alternative to asking the jury to weigh the operative factors presented in this Article is to ask, "Was the product defective?" This is clear and would force the jury to focus on the product and whether it was defective. It has the value of eliminating the reasonable man test, avoiding the proximate cause quagmire, and directing the testimony of witnesses toward the operative factors, rather than toward how much care the manufacturer exercised. The purpose behind this alternative is to permit the jury to answer the question of defect based on the jurors' experiences in society. This is comparable to the negligence approach in that the question of defectiveness is given to the jury. In a negligence case, the question of whether the defendant exercised the care of a reasonable man is given to the jury.

Under this approach, there are several important differences between strict liability and negligence. The most important difference is that the jury is asked to look at the product and decide whether it was defective, rather than to look at the conduct of the seller. Another difference is that reasonable care on the part of the seller is, of course, no defense. See *Cronin v. J.B.E. Olson Corp.*, 8 Cal. 3d 121, 501 P.2d 1153, 104 Cal. Rptr. 433 (1972).

213. *Anderson v. Minneapolis, St. Paul R.R. Co.*, 146 Minn. 430, 179 N.W. 45 (1920).

214. See PROSSER, *supra* note 1, at 244-70.

215. This is a fair description of the defendants discussed in text accompanying notes 6-32 *supra*.

216. See notes 183-93 *supra*.



the role of loss shifting that was in place until the pronouncement of Restatement (Second) of Torts Section 402A.

The strengths of the functional approach to defect are that it (1) avoids the vague proximate cause phrases, such as "foreseeable" and "remote"; (2) candidly points the court towards the operational factors that it should consider in deciding whether to send the case to the jury; (3) directs the jury toward the factors that they should weigh in deciding whether to hold the defendant liable; (4) presents a test that is more concrete and predictable than negligence; (5) retains sufficient flexibility to allow a just result; (6) recognizes that products liability suits involve highly technical issues; and (7) strikes a balance among the competing interests of the consumer, the seller, technological development, and society.

An important goal of the functional approach to defect is to foster clear analysis. Appellate courts weighing the operational factors and relying on them in writing opinions will be of substantial predictive benefit to the trial courts and the sellers. In like manner, if juries are instructed to evaluate the operative factors, they are not as likely to be confused as when they are asked "whether the seller would be negligent if he sold the article knowing of the risk involved," or whether the defendant's product was the "proximate cause" of the injury.